

California Water Conditions Synopsis for May 2003

May began wetter and colder than average, and the snowpack reached its highest level this year on May 10. The accumulated snow water content peaked over a month later than average, in contrast to early peaks in many recent years. Snowmelt runoff began in earnest near mid-month, raising daily flow well above average in all mountain rivers. Many reservoirs in the north state filled to near capacity.

Precipitation during May was 170 percent of average statewide, with higher percentages in the southern half of the state. Precipitation during the month in the northern Sierra was 105 percent of average. The cumulative statewide precipitation since October is 115 percent of average compared to 80 percent one year ago.

Snowpack water content peaked at 95 percent of the historical April 1 average on May 10, and then dropped sharply to 30 percent at the end of the month. Sunny weather in late May accelerated the snowmelt. The largest remaining snow accumulations are at high elevations in the southern Cascade and central Sierra Nevada mountains. Last year the snowpack peaked at 95 percent of average on March 27 and melted very quickly.

Runoff during May was 130 percent of average statewide, with higher percentages in northern California. Weir flow into the Sacramento River bypass system ceased early in the month. Daily snowmelt runoff in southern Sierra rivers peaked near May 28 at levels around five times higher than the flow at the beginning of May, raising the total May runoff in these rivers to near average. Cumulative statewide runoff for the water year is 105 percent of average, compared to 80 percent at this time last year. There is a pronounced gradient from above average in the northwest to below average in the remainder of California.

Forecasts of April through July runoff were increased about 5 percent during May. The statewide forecasts total about 100 percent of average assuming normal weather for the remainder of the season. The runoff forecasts are highest in the far northern basins. Water year forecasts also total 100 percent of average overall. As of May 1, the forecasted Sacramento River Index (SRI) was 99 percent of average, the Sacramento Valley Index (40-30-30 SVI) year type was 'above normal', and the San Joaquin Valley Index (60-20-20 SJI) year type was 'below normal'.

Reservoir storage increased at greater than an average pace during May. Overall storage was about 105 percent of average on June 1, 10 percent more than last year. Many northern reservoirs filled to near capacity in May, including Trinity, Shasta, Oroville, New Bullards Bar, and Folsom.